AB

Naída CI Q70
By Advanced Bionics

Naída CI Sound Processor user guide

English, French, Spanish, German, Dutch, Portuguese

AdvancedBionics.com

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CE
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Naída CI Q70

By Advanced Bionics

user guide
for the Naída CI Sound Processor

Labeling

Labeling symbols and their meanings:

Symbol	Meaning
CE 0123	European Community Mark of Conformity. Authorized to affix the CE Mark in 2013
REF	Model number
(date symbol) 2000-00	Date of manufacture
SN	Serial number
(manufacturer symbol)	Manufacturer
(person symbol)	Type of Protection: B
-20C / +55C	Store at temperatures between -20°C (-4°F) and +55°C (131°F)
(glass symbol)	Fragile
(umbrella symbol)	Do not get wet
(hand/book symbol)	See Instructions for Use
106 kPa / 70 kPa	Suitable for atmospheric range between 70 kPa and 106 kPa, which is equivalent to 3000 m above sea level to 380 m below sea level
95 / 0 (%)	Suitable for exposure to relative humidity between 0-95%
(crossed-out bin)	Dispose of in accordance with applicable national and local regulations
IP57	The Naída CI carries a rating of IP57. This rating indicates that the Naída CI is protected against the following conditions: protection against dust, failure due to one time immersion for 30 minutes to a depth up to 1m and after drying overnight in a dry and store unit

Warning and Cautions

WARNINGS

- **CHOKING HAZARD**—contains small parts that pose a hazard of inhalation.

- Do not use or store the AB myPilot™ in shirt pockets if the recipient has a pacemaker, as there is potential for interference. Contact a health care professional for more information.

- Do not use a ComPilot™ if recipient has a pacemaker, as there is potential for interference. Contact a health care professional for more information.

- Ensure appropriate supervision when child is wearing the Naída CI sound processor and accessories.

- Keep batteries and accessories out of children's reach as they may pose a choking hazard.

- If any parts are swallowed consult a physician or hospital immediately.

- Do not leave children unattended with or allow them to play with batteries.

- Do not place batteries in your mouth.

- Do not chew or swallow batteries. If this occurs, seek immediate medical attention.

- Do not allow children to play with or operate the Zephyr by Dry & Store® or desiccant unattended.

- Using your sound processor and accessories in a manner other than their intended use (e.g. placing them in your mouth or chewing them) may cause bodily harm.

- Do not recharge disposable batteries.

- Do not allow leaking battery fluid to come into contact with skin, mouth, or eyes.

- Do not expose batteries to heat (e.g., do not store in direct sunlight or in a hot car).

- Do not dispose of batteries in fire.

- Do not allow children to charge batteries unattended.

- Do not use any power supply with the sound processor, AB myPilot remote control or ComPilot unless it is supplied by Advanced Bionics or Phonak. If needed, contact Advanced Bionics for a power supply replacement.

- Do not use the AB myPilot or the ComPilot when they are plugged in to power sources such as wall outlets or USB compatible power sources such as laptops.

- The ComPilot comes with a neck loop antenna. Do not touch the neck loop connectors at the same time.

- Power supplies and battery chargers should be operated in an open area to ensure adequate airflow. While, to date, no injuries have been reported, components may become hot during normal use or in the event of a fault. If the device's temperature results in discomfort or pain when touched, disconnect the power source and contact your local Advanced Bionics representative.

CAUTIONS

- Remove external equipment to stop stimulation if sounds cause discomfort.

- It is important for the headpiece to have the correct magnet strength to avoid discomfort or retention issues. If an insufficient number of magnets are used, the headpiece may fall off more than is acceptable. If too many magnets are used, the recipient may experience irritation or discomfort. Consult a clinician if there are any concerns regarding magnet strength. If deemed appropriate, an audiologist may insert additional magnets or remove magnets from the headpiece. Do not place additional magnets in the headpiece unless under the direction of a cochlear implant professional. If the recipient experiences any redness, irritation, or discomfort, discontinue use of the headpiece immediately and contact a cochlear implant center. See the headpiece *Instructions for Use* for additional information regarding adjustment of headpiece magnet strength.

- If the sound processor or accessories become unusually hot or warm, discontinue use immediately and contact Advanced Bionics or a clinician.

- Store additional headpieces away from items with magnetic strips (e.g. credit cards, hotel room key cards), as this may de-magnetize cards.

- Portable and mobile RF communications equipment, including radios and cellular phones, may affect sound quality of the Naída CI sound processor and accessories; however, there is no safety hazard associated with such equipment.

- The Naída CI sound processor and accessories should be used in accordance with the electromagnetic compatibility (EMC) information provided in the *Guidance and Manufacturer's Declaration* section of the Instructions for Use.

- Only use the charger provided for charging AB PowerCels. Do not use it to charge other batteries. Do not try to charge Naída CI PowerCels using a charger other than the one provided by Advanced Bionics.

- Remove batteries from your sound processor when they are drained to prevent damage from possible leaking.

- Do not expose any part of the Naída CI sound processor or accessories to extreme heat, such as an oven, microwave, or hair dryer.

- Only charge batteries using charger(s) recommended by the manufacturer.

- Do not use your AB myPilot or ComPilot accessories when instructed not to use wireless electronic devices, such as on airplanes.

- The AB myPilot should not come within 1/2" (1 cm) of the Naída CI processor

while stimulating the implant. Doing so could cause the implant and sound processor to lose lock. If this happens, power down the processor and power back on (by disengaging the battery and reattaching).

- The digitally-coded, inductive transmission technology used in this device is extremely reliable and experiences virtually no interference from other devices. It should be noted, however, that when operating the device near a computer terminal or other strong electromagnetic fields, it may be necessary to be at least 24" (60 cm) away to ensure proper operation. If the Naída CI does not respond to the implant device because of an unusual field disturbance, move away from the disturbing field.

- If the AB myPilot stops being able to transmit commands to the sound processor, it may be necessary to re-pair the AB myPilot with your sound processor. Consult the *Pairing to the AB myPilot* section of this user manual.

- If volume commands from your AB myPilot to your sound processor seem erratic, re-pair the AB myPilot and the Naída CI.

- **NOTE:** When streaming audio with the ComPilot, if your headpiece becomes unlocked, **turn off** the ComPilot prior to re-locking your headpiece. Not doing so may prevent the sound processor from communicating with your implant.

The following are examples of situations where high levels of electrostatic charge may be created:

- Walking, crawling, or sliding on carpets.

- Sliding on plastic slides.

- Exiting an automobile.

- Pulling sweaters on and off.

- Touching TV or computer screens.

- Removing bedding materials.

To reduce the likelihood of electrostatic discharge damage:

- Touch a person or object with your fingers prior to touching your or your child's headpiece, cable, or sound processor.

- Touch metal surfaces with your hand prior to allowing equipment to contact the metal surface. This is particularly important on the playground where high levels of static electricity can be generated. It is important to discharge any static electricity by touching a metal surface with your hand prior to allowing the sound processor, cable, or headpiece come into contact with the metal surface.

- Take care to avoid contact between your cochlear implant equipment and metal surfaces when exiting a vehicle.

- Remove cochlear implant equipment prior to removing clothing that may contain electric charge (e.g. sweaters).
- Do not touch TV or computer screens. If screens are touched, be sure to touch an object other than your implant system to discharge any charge build-up prior to touching any part of your implant system.
- Use fabric softener on clothing and bedding.

Airport Security Metal Detectors

Metal detectors and security scanners, including full body scanners, will not damage your implant system; however, metal detectors may be activated as you pass through. To avoid hearing any unwanted sound when walking through metal detectors or security scanners, you should reduce the volume on the sound processor or remove your headpiece.

Ultrasonic Sensors

Ultrasonic sensors, sometimes used in lighting sensors and security systems, will not damage your implant system; however, they may be picked up by the headpiece microphone and lead to distorted sound quality when you operate your sound processor in the immediate vicinity of such a sensor. Additionally, if the ultrasonic sound is of a very high intensity, the processor system microphone may become damaged. To avoid hearing any unwanted sound, you should reduce the volume on your sound processor or remove your headpiece when passing near an ultrasonic sensor (e.g. in entrances to libraries).

X-ray Machines

X-ray machines will not damage your sound processor or implant, but may damage your Naída CI and head piece microphones. Avoid placing any system microphones in any checked or carry-on baggage that is screened with X-ray. During airport security screenings, the sound processor and microphone should be worn through the metal detector or examined by hand.

Table of Contents

Naída CI Q70

By Advanced Bionics

Introduction

Purpose of this Guide

This user guide is designed to help recipients, parents, and caregivers understand the use and care of the Naída CI Q70 sound processor. The Naída CI is the latest high-performance sound processor from Advanced Bionics. The most advanced sound processor ever developed by AB, the latest generation in hearing solution features state-of-the-art technologies exclusively available from Advanced Bionics and Phonak for the best possible hearing experience.

The Naída CI provides access to the latest sound processing innovations by Advanced Bionics, the market leader in performance. This guide will provide all of the information needed to use and care for the Naída CI and its accessories. In addition, this guide will provide information for troubleshooting basic issues related to the Naída CI, as well as important safety information. Please read the entire manual prior to using the Naída CI.

About the Naída CI Sound Processor

The Naída CI sound processor is one part of a complete cochlear implant system that enables hearing. The other necessary parts of the system are the Implantable Cochlear Stimulator (ICS), headpiece, and headpiece cable.
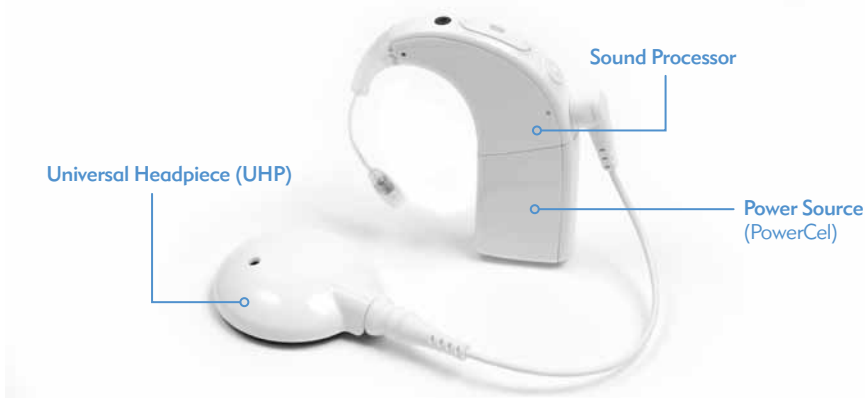
The sound processor consists of two parts: the sound processor and battery power source. There are five battery options, including three sizes of Lithium Ion rechargeable PowerCel™ batteries and a Zn-Air Battery Pak. The recipient also has the option of wearing the power source completely off the ear by using either the AAA/03 PowerPak or the PowerCel Adapter. Please refer to the *AAA PowerPak and PowerCel Adapter Instructions For Use* for more details on these products.

The Naída CI includes programmable, multi-color light-emitting diode (LED) indicators and programmable internal alarms for easy status updates and troubleshooting information.

ComPilot

LEDs

AB myPilot

Additional features include remote control access through the AB myPilot remote control and the ability to stream from the Phonak ComPilot.

The Naída CI Sound Processor

This section will familiarize you with the Naída CI Sound Processor and Accessories

Volume Control

Phonak Dual-Microphone Technology
(front and back microphones)

Volume Control and Tri-Colored LEDs
(green, orange, red)

AB's Patented T-Mic 2

Program Button

Sound Processor

Universal Headpiece (UHP)

Battery Cartridge

Headpiece Cable

Microphone
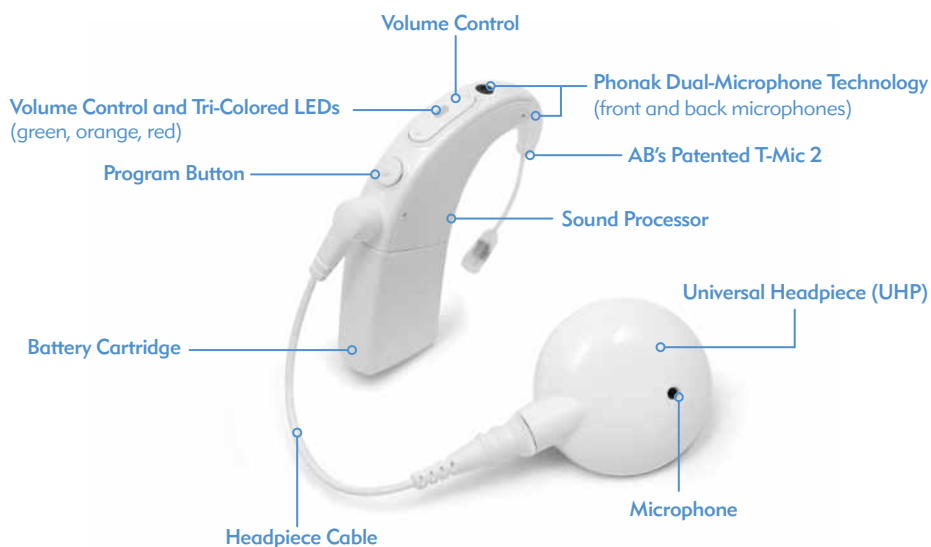
The Naída CI Sound Processor and Accessories Overview

The Naída CI is the newest and most advanced cochlear implant sound processor available.

As evidence of Advanced Bionics' dedication to providing the best hearing possible, the Naída CI provides access to AutoSound™ technology, which dynamically adapts to every listening environment, automatically adjusting volume levels to optimize hearing. The Naída CI is also capable of utilizing all approved sound processing options offered by Advanced Bionics. Depending on the country in which you live, this may include HiRes™-S, HiRes™-P, HiRes Fidelity 120™, ClearVoice™, HiRes Optima™, CIS, and MPS.

The Naída CI

Tri-Colored LEDs
(green, orange, red)

The Naída CI is a miniature computer that converts sound picked up by the microphone into electrical signals that are used by the cochlear implant to enable hearing. It is able to store up to five (5) user-selectable programs for optimal hearing across all listening environments.

The Naída CI has diagnostic indicators, such as LEDs and internal audible alarms. The Naída CI LEDs provide important information about Naída CI status, battery life, program position, audio input, and Naída CI error conditions. Internal alarms provide a discreet way for adult recipients to get important information about battery status, program number, and volume level. For more information, refer to the *Naída CI LEDs* and *Internal Alarms* sections of this User Guide.

The Naída CI can be programmed using IntelliLink™ to prevent use by a cochlear implant other than the one for which it has been programmed. IntelliLink is an important safety feature for very young children and bilateral implant recipients.

The Naída CI can also be programmed bilaterally allowing the recipient access to up to ten programs on a single processor, up to five programs for the left ear and up to five programs for the right ear. When programmed bilaterally by your clinical professional, the Naída CI will detect which ear it is worn on and provide access to the appropriate programs for that ear.

The Universal Headpiece

The Universal Headpiece includes a coil that transmits sound signals and power to the implant, as well as a magnet well, which houses the necessary number of magnets to ensure the headpiece stays on throughout the day. The headpiece is covered by a Color Cap, which snaps securely in place. The headpiece also functions as a sound input source, having a microphone embedded in it. The microphone picks up sound from the environment and transfers it to the sound processor via a detachable cable. Once the sound processor has converted the sound into electric signals, it sends the information to the implant via the cable and headpiece. The cables come in a variety of colors and lengths to suit all needs. The Naída CI sound processor works with the Universal Headpiece.
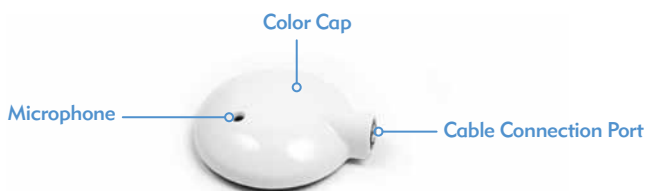
The Universal Headpiece (UHP), works with all Advanced Bionics' sound processors, and is intended for use with the Naída CI processor outside of water environments.

For more information, refer to the *Replacing Headpiece Cables* section of the User Guide or the *UHP and/or Cable Instructions for Use.*

AB myPilot

The AB myPilot is an advanced remote control that leverages Phonak technology to enable wireless communication for unilateral and bilateral Naída CI recipients. The AB myPilot provides convenient controls to manipulate program, volume, sensitivity, source-specific listening checks, and ZoomControl for the Naída CI. The AB myPilot also has the ability to provide status and battery information for Naída CI processors. For bilateral Naída CI users, AB myPilot offers one-touch binaural controls, allowing changes to be made to both processors at once.

ComPilot

The ComPilot allows unparalleled connectivity for Naída CI recipients, connecting them wirelessly to Bluetooth® enabled phones and devices or MP3 players for speech or stereo music. It is also compatible with Phonak's portfolio of FM receivers via a euro socket. Additionally, when unpaired, the ComPilot is able to stream to compatible Phonak instruments. This allows bimodal wearers -- people who wear a Naída CI on one ear and a Phonak hearing instrument on the other ear -- access to bilateral wireless streaming.

When the ComPilot is paired to the Naída CI, it provides remote control functions to adjust the Naída CI for increased listening comfort in addition to wireless streaming. When paired, you are able to make program and volume changes via the ComPilot only to the Naída CI. If you are bilaterally implanted, changes can be made to both Naída CI processors simultaneously. The ComPilot also connects both Naída CI processors wirelessly to other communication and audio devices, allowing you to hear the signal in both ears.

Naída CI Listening Check

The Naída CI Listening Check's unique design makes conducting a diagnostic check of the microphone and audio input sources easy and accessible. The Module itself does not have a power source, as it relies solely on power from the Naída CI power sources (PowerCels, Zn-Air Battery Pak, AAA/03 PowerPak or Off-the-Ear Power Options). The Naída CI Listening Check allows an unaided listener to listen to the exact microphone configurations the recipient is using. Alternatively, if the recipient owns an AB myPilot, the unaided listener can do a listening check of all audio sources independently by selecting them individually on the AB myPilot menu.

Performance Technology

Naída CI allows users access to Phonak's Binaural VoiceStream Technology including UltraZoom, DuoPhone, QuickSync, and ZoomControl. These programmable features are set by your implant professional in the SoundWave fitting software.

UltraZoom
Zooms in on the voices of people facing you, while noise from the side and back is reduced.

DuoPhone
DuoPhone allows bilateral users the ability to hear phone conversations in both ears simultaneously while also reducing surrounding noise. By placing the phone to one ear the conversation is automatically streamed to the other ear as well, giving the listener the best possible listening experience.

QuickSync
The QuickSync feature from Phonak allows for easy, instant, simultaneous adjustments to volume and program settings on two Naída CI sound processors. It gives bilateral wearers the ability to control both cochlear implants/sound processors with just one touch.

ZoomControl
Focuses on the speaker to the left or right that you want to hear when you cannot face them, such as when driving in a car.

CAUTIONS: • UltraZoom will dampen sounds that are not in front of the recipient
• Do not use UltraZoom in an off-the-ear wearing configuration.

Assembling the Naída CI

The Naída CI Sound Processor and accessories consists of a Naída CI sound processor, T-Mic™ 2 or earhook option, headpiece, cable, and internal implant. The Naída CI has various sound inputs that a hearing care professional can program for use. The Naída CI allows access to a front and rear microphone, T-Mic 2, and headpiece microphone. It also allows for the ability to use T-coil input and wireless FM. The Naída CI has the ability to wirelessly stream Bluetooth® and directly connect battery-operated devices via the ComPilot.

The processor provides you with access to the latest in sound processing technology. In addition, the processor offers you a wide range of wearing options that can be customized to fit lifestyle needs.

Connecting the Universal Headpiece (UHP) Color Caps

> **WARNING:** Small Parts Hazard: The processor, UHP Color Caps, magnets, and spacers may cause choking if swallowed.

Attaching the UHP Color Cap
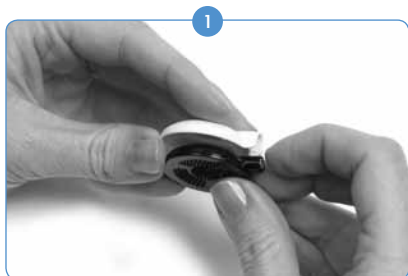
Align the Color Cap with the headpiece.
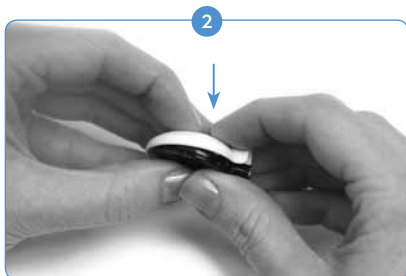
Gently press the cap and headpiece together. The Color Cap will snap into place.

Removing the UHP Color Cap
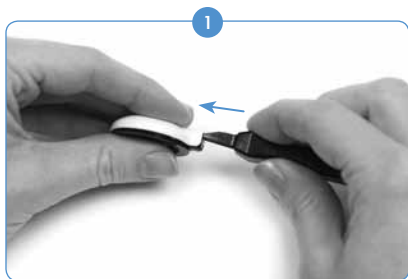
Insert the UHP Removal Tool into the slot above the headpiece cable connector.
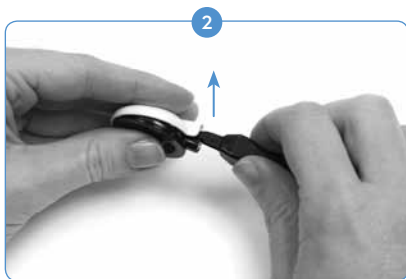
Gently push the tool forward to release the Color Cap as shown above.

Connecting the Headpiece to the Naída CI
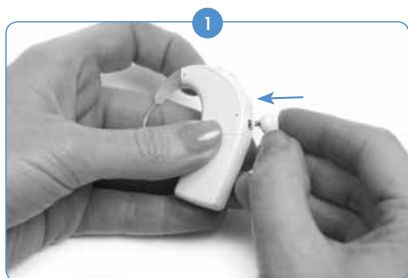
Align the pin on the right angled end of the cable with the cable connection port located below the program button on the body of the processor.
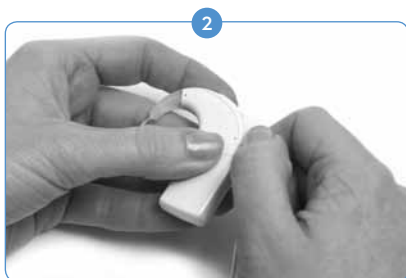
Press in until you feel it snap into place.

Removing the Headpiece from the Naída CI
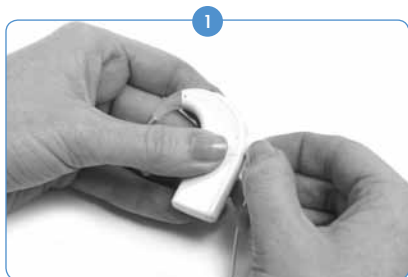
Hold the cable's connector (the right-angled plastic plug, not the wire).
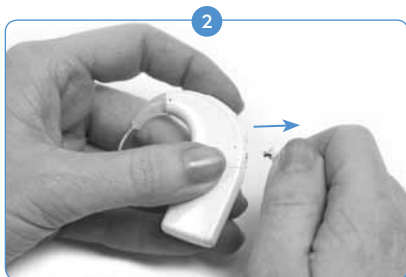
Gently pull the cable's connector away from the Naída CI.

Connecting the T-Mic 2/Earhook
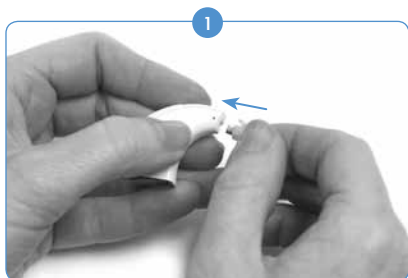
Beginning with either the earhook or T-Mic 2 disconnected, align the T-Mic 2 or earhook flush with the processor. Hold the T-Mic 2 or earhook firmly at the top and push towards the processor until it meets flush with the processor.
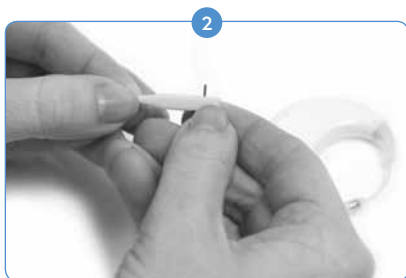
Using the provided T-Mic 2/Earhook tool, place one of the pins in the small hole on the side of the tool. This will help to steady the pin as you line it up with the pin hole on the T-Mic 2/Earhook.
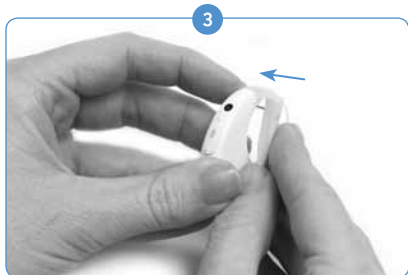
Line up the pin with the hole in the T-Mic 2/Earhook and gently push it through the hole. The pin will move from one side of the processor, through the T-Mic 2/Earhook, to the other, holding the T-Mic 2/Earhook in place. The pin should not come out the other side.
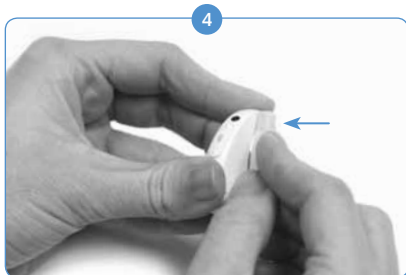

If a small portion of the pin extends beyond the processor, use the side of the tool to push the pin inward so it lies flush with the processor.
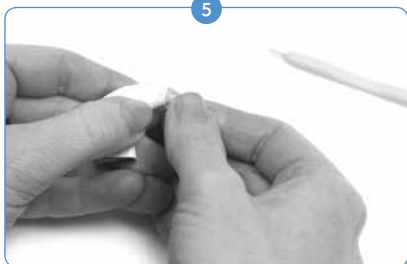
Pull the tool away from the processor, leaving the pin inside the Naída CI.

Removing the T-Mic 2/Earhook

Remove the power source. Align the pointed end of the T-Mic 2/Earhook tool with the hole on the processor that contains the pin holding the T-Mic 2/Earhook on the Naída CI processor.
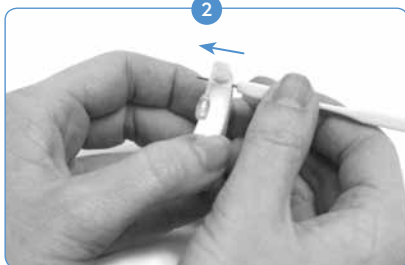
Gently press the tool in the hole, pushing the pin out the other side.
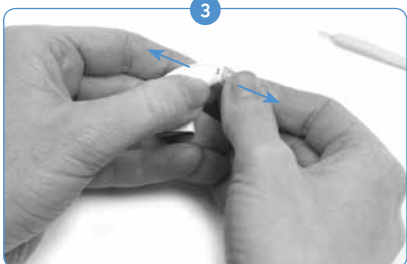
The pin does not need to be fully removed from the processor. As long as the tool was pushed in flush on one side of the processor, the pin should be displaced enough for the T-Mic 2/Earhook o be removed.

Remove the tool from the Naída CI. Gently grasp the T-Mic 2/Earhook at the top near where it connects with the processor and pull forward, until it is separated from the processor.

Attaching the T-Mic 2 Cover
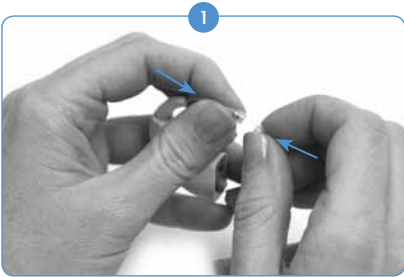
Hold the T-Mic 2 Cover in one hand. In the other hand, hold the T-Mic 2 at the end that houses the microphone. Align the bottom of the T-Mic 2 over the T-Mic 2 Cover.
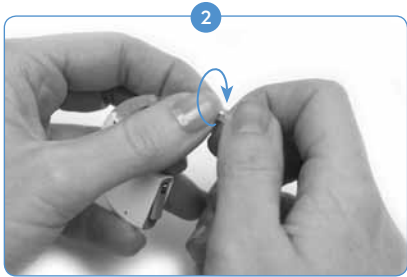
Gently turn the T-Mic 2 Cover clockwise into the T-Mic 2 Cover. Screw until the parts meet together flush.
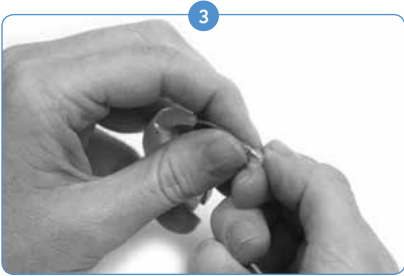
Once resistance is felt, stop turning.

Removing the T-Mic 2 Cover
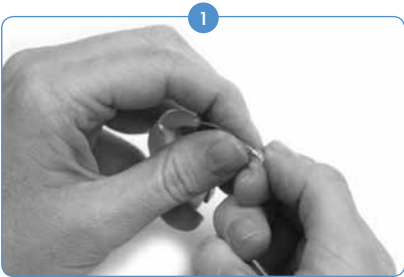
Grasp the end of the T-Mic 2 where the T-Mic 2 Cover is located, in one hand. Firmly hold the T-Mic 2 microphone portion in the other hand.
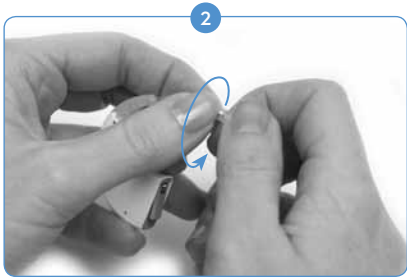
Turn the hand holding the T-Mic 2 Cover counter-clockwise to slowly unscrew the T-Mic 2 Cover from the T-Mic 2.
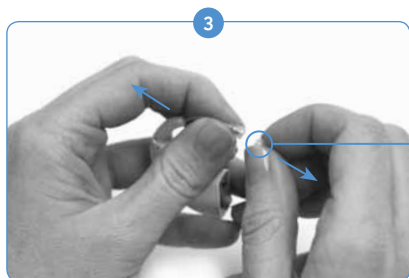
Continue turning until the T-Mic 2 Cover separates from the T-Mic 2. Discard used T-Mic 2 Covers.

*Enlarged view

CAUTION: It is recommended to use the T-Mic 2 only when the T-Mic 2 cover is properly seated. The T-Mic 2 cover should be replaced every 3-4 months or if plugged by earwax.

Wearing the Naída CI

The Naída CI has been designed with flexibility in mind. The processor was built to the smallest size possible for user comfort when worn on the ear without compromising performance. Recipients also have the option to wear the processor completely off the ear, using the clip, or partially off the ear with the power source removed from the processor and securely attached elsewhere on the recipient's body. These designs ensure the most comfortable, secure, and discreet wearing options possible. Naída CI cables come in a variety of lengths and colors which recipients can change to suit their preference. This section describes a variety of wearing options for the Naída CI.

The Naída CI processor can be worn in a variety of locations depending on the recipient's age and preference. Some Naída CI wearing locations may obscure the sound processor LED; therefore, internal alarms may be helpful to notify adult wearers of processor status. Internal alarms can be activated by your hearing care professional.

Using the Clip

Front View

Rear View

The Naída CI Clip comes in left and right configurations to provide improved wearing flexibility and the ability to wear the processor in a secure, completely off-the-ear style. This need is particularly great for small children and many physically active CI users.

The Naída CI Clip is intended to attach directly to clothing, hair or in the preferred wearing location. There are both left and right sided clips to suit the recipient's preference.

The Naída CI Clip fits all three sizes of PowerCel rechargeable batteries, as well as the Zn-Air Battery Pak. The clip also includes a silicon cover for added protection when the T-Mic 2/Earhook is detached.

Inserting the Naída CI in the Clip
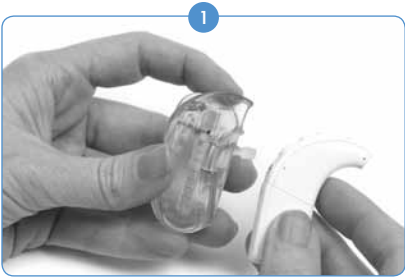
Hold the sound processor in one hand and the clip in the other hand.
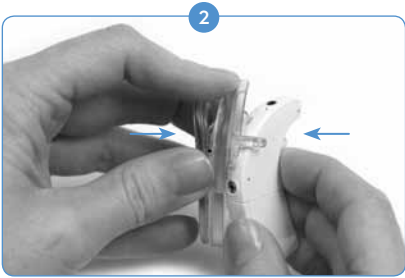
Align the processor so the button side goes into the back of the clip opening first, making sure the retention arm lies between the volume control and the program button.

Release Latch
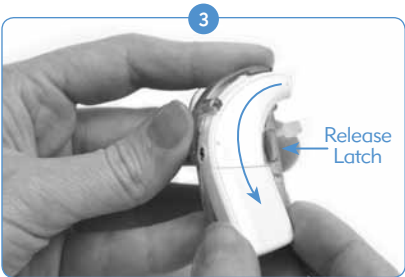
Gently but firmly push the processor into the clip so the portion of the processor that goes over the ear (ear side) slides down into the clip. This portion of the processor is held in place by a release tab.

If the earhook/T-Mic 2 has been removed, secure the silicon cover in the opening that would typically contain the earhook/T-Mic 2.
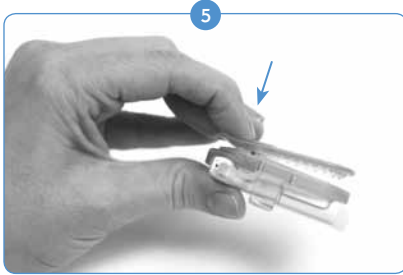
Depress the spring end of the clip to open and secure the sound processor to the desired location on clothing or in hair.

Removing the Naída CI from the Clip

To disengage the Naída CI processor from the clip, first pull back the release tab that is helping to hold the processor in the clip.
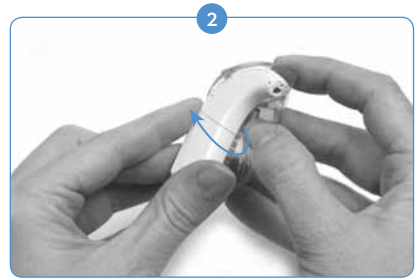
Carefully remove the Naída CI, leading with the internal earhook portion. Be careful not to use the PowerCel as a lever to remove the Naída CI; this may damage the PowerCel or the connector on the Naída CI.

The processor should come out of the clip with the battery still attached to the processor. It is recommended that the T-Mic 2/Earhook be removed from the Naída CI before wearing the processor completely off the ear. Please see *Removing the T-Mic 2/Earhook.*

Using the Naída CI Sound Processor

Powering the Naída CI

CAUTION: Power supplies and battery chargers should be operated in an open area to ensure adequate airflow. While, to date, no injuries have been reported, components may become hot during normal use or in the event of a fault. If the device's temperature results in discomfort or pain when touched, disconnect the power source and contact your local AB representative.

The processor is turned 'on' when a charged battery is attached to the processor. In order to power 'off' the processor, the battery cartridge must be removed. When the battery is engaged the orange LED located in the middle of the volume control will flash to indicate battery charge followed by the green LED to indicate program position.

The Naída CI will always power on in Program 1 with the volume and sensitivity at the default settings.

To power down the Naída CI, simply remove the battery cartridge.

Removing the Battery
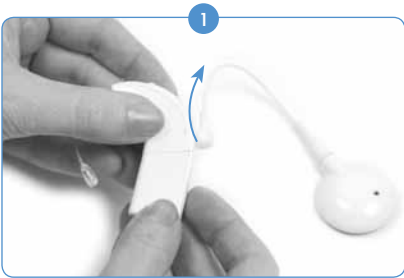
Rotate the RF cable upward to avoid bumping it upon battery removal.
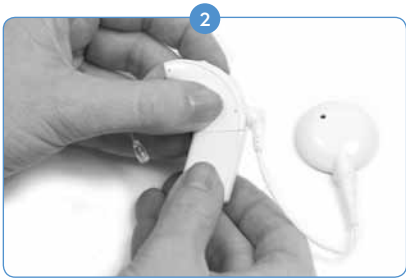
Hold the sound processor in one hand. In the other hand hold the battery cartridge.
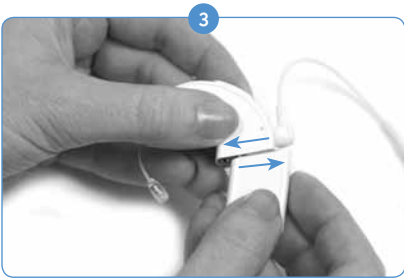
Firmly slide the battery cartridge away from the Earhook or T-Mic 2.
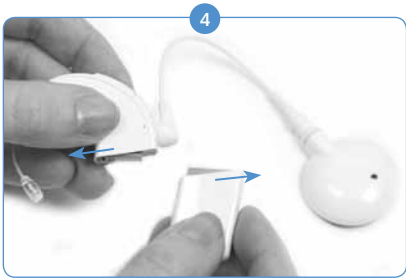
Continue sliding the battery cartridge until it separates from the processor.

Replacing the Battery
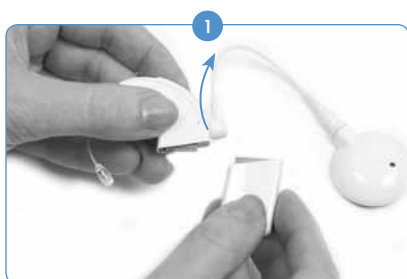
Hold the Naída CI in one hand. Rotate
the RF cable upward to avoid bumping it
upon battery placement.
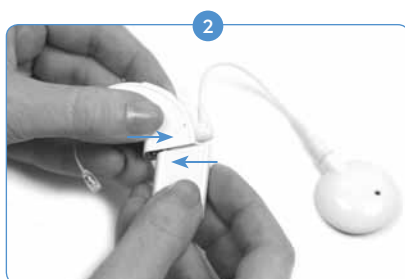
Align the battery cartridge connector
with the processor housing side of
the connector.
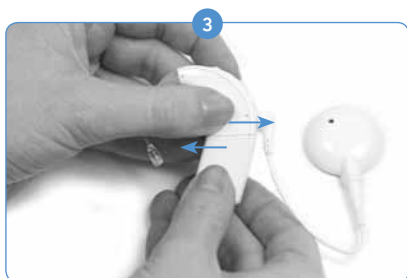
Slide the battery onto the processor
until it clicks into place.

NOTE: Do not force the battery cartridge onto the processor. The battery cartridges are designed to be inserted in only one direction; applying force may damage the equipment.

Understanding Naída CI LEDs

The Naída CI LEDs are a programmable feature providing visual information about the Naída CI status, battery life, program position, and error conditions.

Naída CI Sound Processor LED Indications

Color	Behavior	Programmable	Indication
Orange	Blinks at start-up	**No.** Battery indicator is only available with use of the rechargeable PowerCels and AAA PowerPak. **Battery life indicators are not available with use of Zn-Air batteries.**	• 4 quick blinks indicate that the battery is fully charged • 2 - 3 quick blinks indicate that the battery is sufficiently charged to power the Naída CI • 1 quick blink indicates that the battery is nearly depleted • No blinking indicates depleted battery. Replace with charged or new battery
	Solid	**Yes**	The battery is almost depleted
	Blinks twice every three seconds	**Yes**	The battery is almost depleted and cannot support stimulation (Sleep Mode)
	Fades out	**No**	The Naída CI is entering Sleep Mode
Red	Blinks once per second	**Yes**	Loss of lock with the implant
	Blinks rapidly (more than once per second)	**No**	**Intellilink™** enabled and the Naída CI is connected to the wrong implant
	Solid	**No**	Sound processor error condition. Fully remove and re-insert the battery to reset processor
	Blinks 5 times	**No**-if using AB myPilot this pattern is the default	Response to AB myPilot's request to 'Find Paired Devices'. The Right paired device will identify, itself with this LED pattern.
Green	Flickers in response to loud inputs	**Yes**	The sound processor and microphone are responding to sound
	Blinks at start-up, after battery status, and upon program change	**No**	• 1 blink indicates program one • 2 blinks indicate program two • 3 blinks indicate program three • 4 blinks indicate program four • 5 blinks indicate program five
	Solid Green	**No**	A processor that is not yet programmed
	Blinks 4 times	**No**-if using AB myPilot this pattern is the default	Response to AB myPilot's request to 'Find Paired Devices'. The Left paired device will identify, itself with this LED pattern.

NOTE: Use of some Naída CI accessories may obscure the processor LED.

If the user would like to know the battery status of the Zn-Air Battery Pak they are currently using and have an AB myPilot paired to their device, they can conduct a Battery Check readout of the Naída CI. To ensure an accurate reading of the Zn-Air Battery Pak, wait at least 15 minutes after it has been attached to the Naída CI before performing a Battery Check readout.

Please see the *Battery Check* section of the *AB myPilot User Guide* for instructions on how to conduct a battery status check using AB myPilot.

Understanding Internal Alarms

Internal alarms are a programmable feature that can be used independently or in conjunction with the Naída CI LEDs to provide important information about Naída CI status and battery life.

Naída CI Internal Alarms

Behavior	Programmable	Indication
Beeps upon program change	**Yes**	• 1 beep indicates program one • 2 beeps indicate program two • 3 beeps indicate program three • 4 beeps indicate program four • 5 beeps indicate program five
Short Beep upon increase/decrease in volume	**Yes**	Beeps once per press of the volume control either up or down (a double beep will be heard when the following settings are reached: top of the volume range; baseline volume setting; and bottom of the volume range)
Long Beep (once every 15 minutes)	**Yes**	Low battery

Using the Naída CI Headpieces:

The Naída CI works with the Universal Headpiece (UHP)

The Universal Headpiece

The UHP is designed for use with the Naída CI processor during all daily activities, with the exception of swimming and bathing.

Replacing RF Cables

RF cables are available in a variety of colors and lengths to suit the recipient's personal wearing preferences. Before you can use the Naída CI sound processor, you must use the cable to connect it to the headpiece. Inspect the cable on a regular basis to ensure it is in good condition.

If it appears damaged, replace it with a new cable.

To attach the cable to the headpiece:
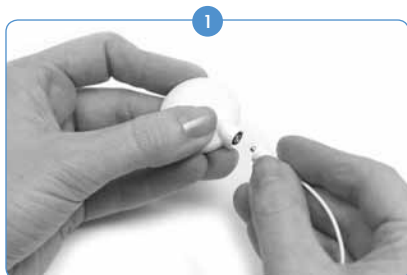
1	2
Hold the headpiece in one hand and the cable connector in the other hand.	Push the cable connector firmly into the headpiece connector.
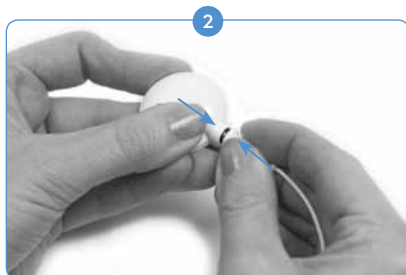
To attach the cable to the sound processor:
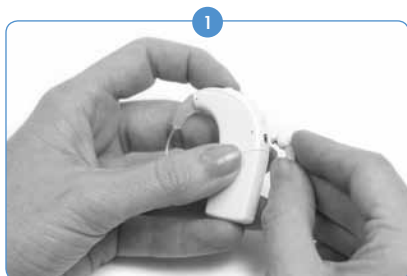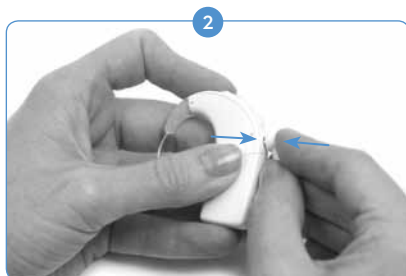
1	2
Hold the sound processor in one hand and the cable connector in the other hand.	Push the cable connector firmly into the sound processor connector port.

For assistance in troubleshooting headpiece cables, please refer to the *Troubleshooting* section of the User Guide.

Adjusting Headpiece Magnet Strength

It is important to have the correct magnet strength so the recipient does not experience discomfort or retention issues. If an insufficient number of magnets are used in the headpiece, it may fall off more often than is acceptable. If too many magnets are used , the recipient may experience irritation or discomfort. Consult a hearing care professional if you have any concerns regarding magnet strength. If deemed appropriate, your hearing care professional may insert additional magnets or remove magnets from the headpiece. If the recipient experiences any redness, irritation, or discomfort, discontinue use of the headpiece immediately and contact a cochlear implant center. See the *Headpiece Instructions for Use* for additional information regarding adjustment of headpiece magnet strength.

WARNING: Do not place additional magnets in the headpiece unless under the direction of a cochlear hearing care professional.

Removing Headpiece Color Caps

The UHP Color Caps are available in a variety of colors to match or coordinate with the Naída CI sound processor. A Color Cap must be in place at all times when using the headpiece. Color Caps can be replaced to change the look and style of the headpiece. To remove the headpiece Color Cap, only use the tool provided by Advanced Bionics. See the *Color Cap or UHP Instructions for Use or the Connecting Universal Headpiece (UHP)* of this User Guide for additional information regarding removal and replacement of headpiece Color Caps.

Adjusting Controls on the Naída CI

Changing Programs

Program Button

The program button is located on the spine of the Naída CI to allow the recipient to easily change the listening program during use. The Naída CI can store up to five programs for optimal listening in a variety of situations. These programs can be updated and changed by the hearing care professional during fitting.

Any changes made to volume or sensitivity will be carried over to subsequent program changes. This applies to volume changes with either onboard volume controls or the AB myPilot remote control, as well as to sensitivity changes made with the AB myPilot remote control.

To change programs:
Push the program button down briefly and then release the button. Through the push of the button the programs will switch in a chronological order; after the final program, the user will return back to the first program.
Additional Functionality of the Program Button:

The Program Button also allows the user to enter or exit Standby Mode. Standby Mode is a low power state the Naída CI can enter to save power without having to be turned off. Standby mode allows the PowerCel or Zn-Air Battery Pak to remain attached to the processor without causing a major drain on battery life. For example, if a user on a long flight wants to leave the device on his ear but turn off the sound, he can actively put the device in Standby Mode to conserve power. The benefit of this feature is that the user can quickly resume use of the device and not worry about draining his battery.

Actively Entering Standby Mode:

- The user must hold down the program button for four seconds.

- Upon entering Standby Mode, an orange LED will briefly light up before fading out. This indicates the processor has entered Standby Mode.

  NOTE: LEDs will not light up during Standby Mode.

Passively Entering Standby Mode:
The device will also enter Standby Mode passively if left unlocked for more than five minutes.

Exiting Standby Mode:

- To exit Standby mode the user simply presses the program button briefly once.

- An orange LED will light up on the device to indicate battery status followed by a blinking green LED to indicate the current program setting. The device is now fully powered and ready for use.

Changing Volume

Increase ——— Volume Control

Decrease ———
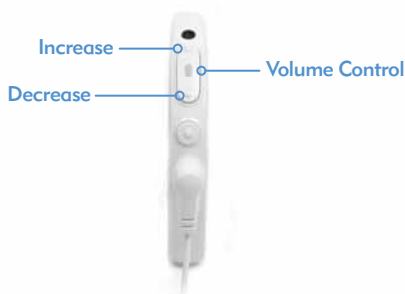
The volume control is located on the spine of the Naída CI, just above the program button. If the hearing care professional has not disabled the volume control, 10 presses on the top portion of the volume control will take the recipient to maximum volume output, while 10 presses on the bottom portion of the volume control from the baseline volume position will take the recipient to the minimum volume output. The Naída CI processor's LED is located in the middle of the volume control.

To change volume:
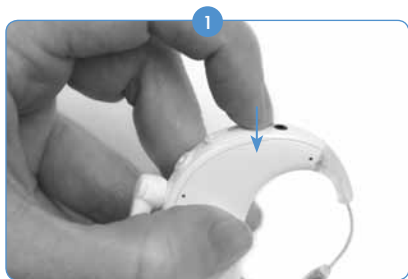
Pressing briefly on the top portion of the volume control will increase the volume.

Pressing briefly on the bottom portion of the volume control will decrease the volume.

The volume range available within a program can be changed or disabled by a hearing care professional in the SoundWave™ fitting software. If there are any questions about the specific volume range setting, please contact an implant center.

> **REMEMBER:** The QuickSync feature allows bilateral wearers to control program and volume in both devices simultaneously by only touching one Naída CI.

Changing Sensitivity

A change in sensitivity adjusts the softest sound that can be picked up by the microphone. Sensitivity adjustments are either programmed by a hearing care professional in the SoundWave™ fitting software or through the use of the AB myPilot remote control. If you have any questions about the specific sensitivity control settings, please contact an implant center. Please see *Changing Sensitivity with the AB myPilot Remote Control* in the AB myPilot User Guide.

Connectivity

Using FM

The FM feature helps many cochlear implant users, particularly school-aged children, overcome difficulties hearing a speaker at distance in the presence of noise and reverberation. The Naída CI sound processor enables use of wireless FM systems through two different modes.

The first way to access FM is by attaching the FM receiver directly onto the ComPilot streamer. The signal is then transmitted wirelessly to the Naída CI. This signal can be transmitted to one or two Naída CI processors for bilateral recipients. FM signals can also be streamed to a Naída CI and a Phonak Hearing Instrument simultaneously for bimodal users.

ComPilot

MLxi
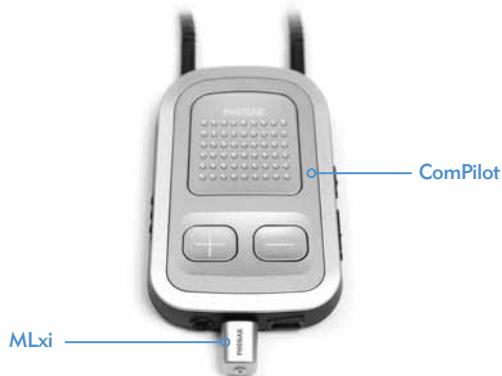
The second method to access FM is by having a hearing care professional activate the telecoil in the FM program. The telecoil, used in conjunction with a looped room or the Phonak MyLink, will allow the recipient to hear the speaker without the use of connecting wires. Please see *ComPilot User Guide or AB addendum for ComPilot* for more information.

MyLink

NOTE: To avoid any unpleasant sounds, ensure that the sound processor is turned off before attaching or removing an FM receiver. Read the operating instructions provided with the FM system prior to using FM with the Naída CI processor.

To attach an FM Receiver to the ComPilot:

With the ComPilot turned off, hold the ComPilot in one hand. With the other hand, align the three FM connector pins with the Europort on the ComPilot. Take care to ensure that the FM receiver pins match the size and orientation of the holes on the ComPilot. Failure to do so may cause damage to the FM receiver and/or the ComPilot.
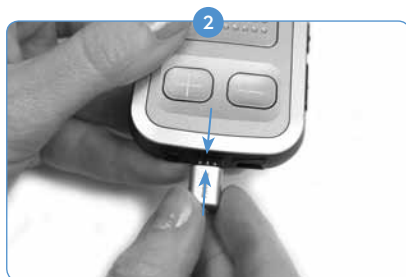
Firmly press the FM receiver into place on the ComPilot.

③ Adjust the program position on the processor or AB myPilot to the desired program for FM use.

④ Reduce volume settings.

⑤ Turn on the ComPilot.

⑥ Adjust the volume to the desired level for FM use.

To remove an FM receiver:

With the ComPilot turned off, hold the ComPilot in one hand.

With the other hand, gently pull the FM receiver straight out of the Europort.

③ Readjust the program position and volume to their desired settings for non-FM use.

For further information regarding FM use, refer to the *Instructions for Use* included with the FM system.

Pairing to the AB myPilot

In order for the AB myPilot to control the Naída CI(s), it must be paired to the processor/s. The AB myPilot may be un-paired and paired to multiple Naída CI processors. This allows one AB myPilot to be used with all Naída CI recipients in a classroom. This may also be convenient for a caregiver with several implanted children. They would only need one AB myPilot to have remote control access to everyone.

The AB myPilot must be paired to your Naída CI within five minutes of the processor starting up. This time period is referred to as the Pairing Window and it begins upon the attachment of the PowerCel or Zn-Air Battery Pak or Power Adapter to the Naída CI.

After the five minute **Pairing Window** ends, pairing is no longer possible. If you need more time to pair, you must remove and replace the Naída CI battery to begin the Pairing Window again.

Sound input to the processor is not affected during this period. If pairing is not desired, the user can proceed with normal use of the Naída CI during this time.

To Begin Pairing the AB myPilot to the Naída CI:

1. Make sure a hearing care professional has enabled remote control functionality on the Naída CI.

2. Have the Naída CI you want to pair within 11 inches (30 cm) of the AB myPilot remote control.

3. Attach the PowerCel, Zn-Air Battery Pak, or PowerCel to the Naída CI, commencing the Pairing Window (five minute time out).
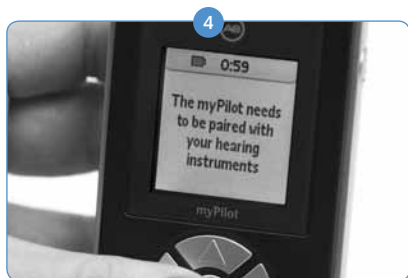
Upon turning on the AB myPilot will read the following, '***The AB myPilot needs to be paired with your hearing instruments.***' Press the center button on the remote control.
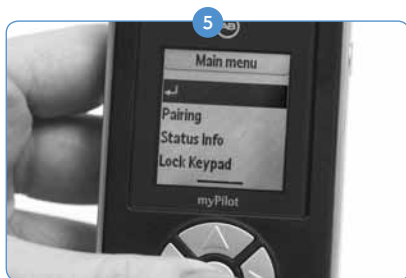
The main menu will be shown; from this menu, click the downward arrow button to highlight the **Pairing** option. Press the center button again to select.
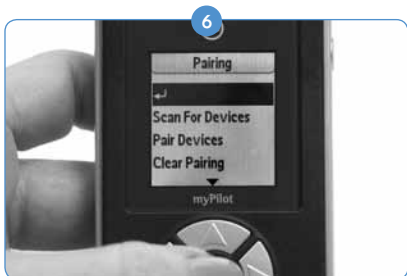
From this menu press the downward arrow button to highlight the **Scan for Devices** option.
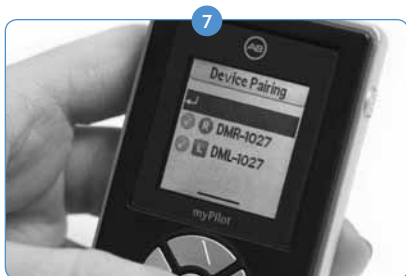
When the Naída CI is found, it will show the recipient's initials on the AB myPilot, as well as the ear it is primarily programmed for.
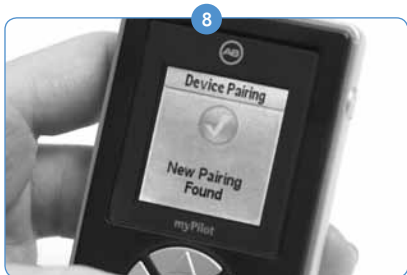
There will be a green circle with a checkmark in it to show that it is paired.

9 On the AB myPilot you can press the center button to return to the **Home** screen.

To un-pair the AB myPilot and Naída CI:
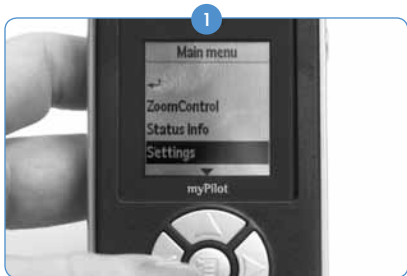
Using the AB myPilot remote control, press the center button to be taken to the Main Menu. from this menu, click the downward arrow button to highlight the **Setting** option. Press the center button again to select.
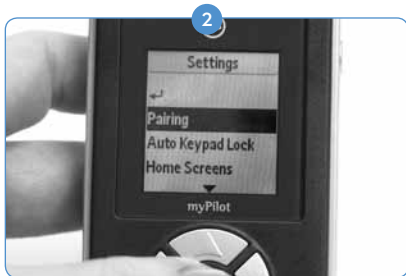
From the next menu that is shown, use the downward arrow to highlight the **Pairing** option and press the center button again to select.

3 If you wish to un-pair only one of the Naída CIs that you currently have paired, highlight the **Pair Devices** option and press the center button.

4. The screen will tell you which devices are paired by showing a green circle with a checkmark in it beside the recipient's initials. Move to highlight the device you would like to un-pair using the downward arrow. Press the center button once you have highlighted the device.

5. The green circle with the checkmark will disappear, and the device will be un-paired and will no longer be controlled by the AB myPilot remote.
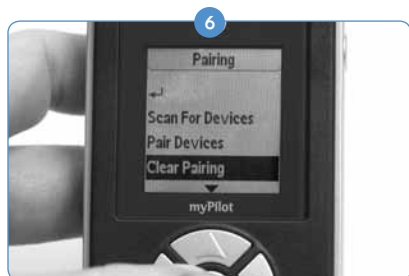
If you wish to un-pair all devices at once, from the pairing menu, press the downward arrow button to highlight the **Clear Pairing** option. Press the center button to select.
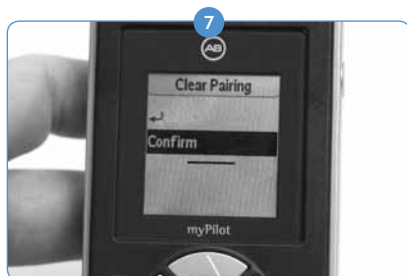
The device will then ask you to confirm this command. You can confirm it by selecting **Confirm** and pressing the center button.
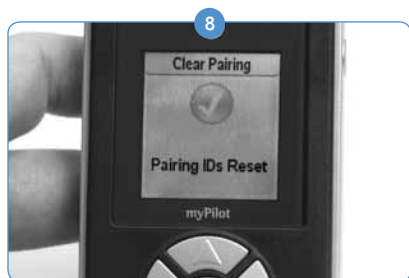
Pressing the center button will clear pairing for all Naída CIs that are paired to the AB myPilot.

CAUTION: Be advised that placing the AB myPilot within a 0.4 inch (1cm) range of the Naída CI will cause the Naída CI to lose communication with accessory devices such as the AB myPilot and/or the ComPilot. At this time, the AB myPilot will not be able to communicate with the Naída CI. The Naída CI will have to be power cycled (restarted by removing and replacing the power source) in order for the AB myPilot to resume communication with the sound processor.

The AB myPilot is intended to work at an arm's length from the Naída CI.

The Naída CI Listening Check and Listening Check Earbuds

Listening to the Microphone(s) and Auxiliary Inputs

A convenient test mode is built in to all Naída CI processors to enable individuals with unaided hearing to listen to sound sources. With the AB myPilot Remote Control, all sound sources can be listened to independently. Without the AB myPilot Remote Control, sound sources are listened to on a program-by-program configuration.

Headpiece Mic — Front Mic — Rear Mic — T-Mic 2
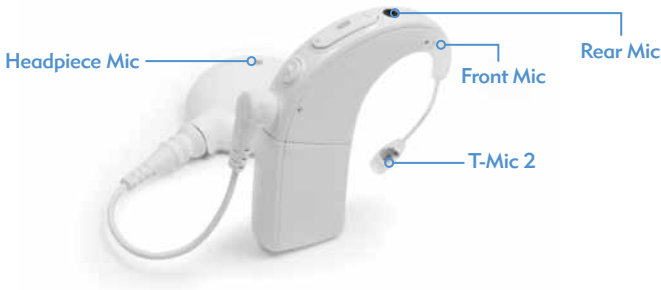
The available sound sources are:

- Microphones (Front and Rear, Head Piece, T-Mic 2)
- FM receivers
- T-coil
- Sound being streamed through the ComPilot

To listen to the desired input:
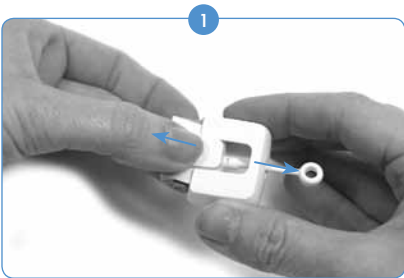
Remove the battery from the processor (if not already removed). Hold the Naída CI Listening Check with one hand using the grip indents on the sides for traction. Using the other hand, grasp the Naída CI Listening Check over the AB logo and pull out.
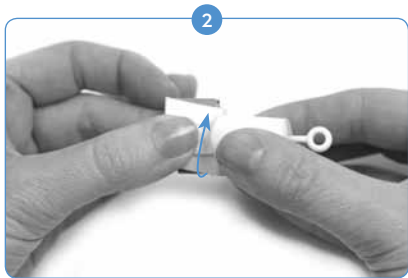
Turn the AB logo portion of the Naída CI Listening Check 90 degrees.

3
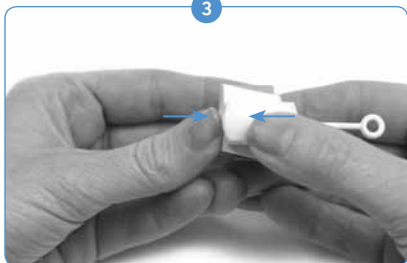
Insert the AB logo portion into the other portion of the Naída CI Listening Check. You should feel the two portions snap into place. Once in place, the processor and PowerCel connectors will be exposed.

4
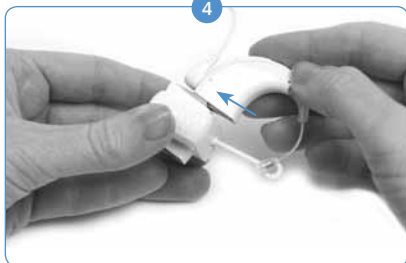
Connect the top of the Naída CI Listening Check Module to the processor

5
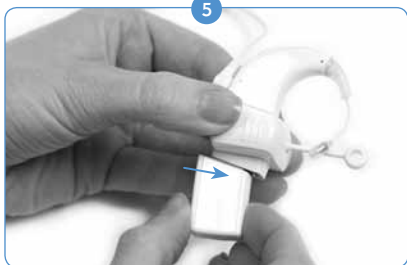
Connect the bottom of the Naída CI Listening Check to the power source (PowerCel, Zn-Air Battery Pak, AAA PowerPak).

6
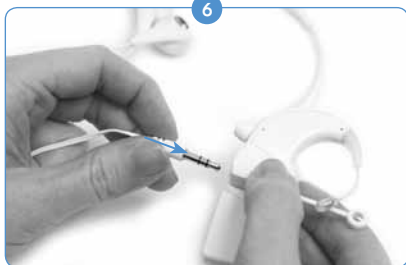
Connect the supplied earbuds to the 3.5 mm auxiliary jack on the side of the Naída CI Listening Check.

7 Place the earbuds in the ears of the unaided listener.

8 When the Naída CI Listening Check is attached, the processor immediately enters listening check mode. If you are not using an AB myPilot to select the input sound source, you will be listening to the input sound source configuration of the first program. If you would like to listen to the other program sound source configurations, use the program button to cycle through the programs.

9 If you are using an AB myPilot, select *Listening Check* from the AB myPilot menu and select the input sound source to which you would like to listen. Alternatively, if the Naída CI is already connected to the Naída CI Listening Check and paired to the AB myPilot, the AB myPilot will go to the Listening Check screen once it communicates with the Naída CI. This can be done by briefly pressing the power button on the AB myPilot. Once the Listening Check screen is shown, you can use the left and right arrows to listen to program configurations and the sound sources independently.

  a. If you select T-coil, make sure you are synced to either a loop or myLink. Provide input to

the FM transmitter to assess audio quality.

b. If you select Wireless, you will be listening to whatever audio source is being streamed through the ComPilot (i.e. Bluetooth device, FM, battery-operated device, etc.). To begin the process, have the ComPilot turned on and the desired source streaming. It is a good idea to turn the volume down on any device that is directly connected to the ComPilot. If listening to FM input, connect the wireless FM receiver to the Europort located on the ComPilot and synchronize it with the FM transmitter. Provide input to the FM transmitter to assess audio quality.
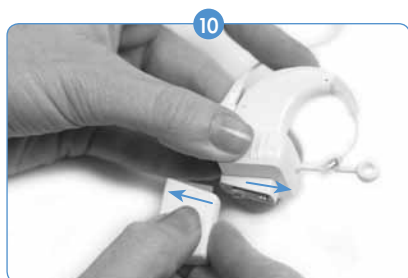
Once the listening check is complete, disconnect the module from the battery.
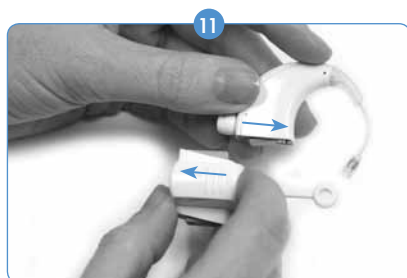
Remove the processor from the module. Reconnect the battery to the processor, and select the desired settings for use.
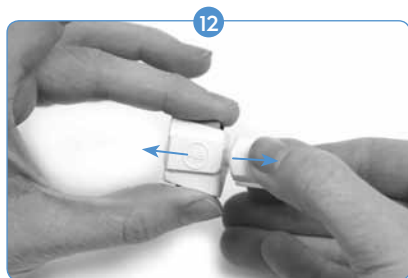
To close the Naída CI Listening Check when not in use, remove the earbuds and grasp the grip indents on the side of the Naída CI Listening Check with one hand while grasping the processor and battery interfaces with the other hand. Carefully pull your hands apart until the two pieces disconnect.
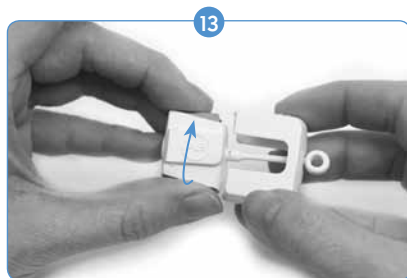
Turn one piece 90 degrees, aligning the AB logo piece to slide into the other piece.
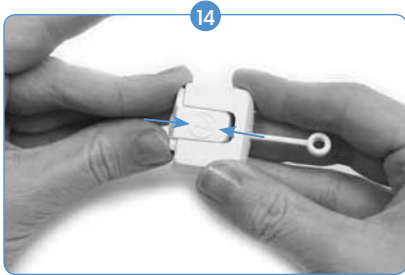
Push them together until they snap into place.

NOTE: The Naída CI Listening Check requires a charged power source to function correctly. If the power source being used to conduct the listening check has been depleted to an inadequate charge level, the user will not be able to complete the task.

If the user attaches a discharged rechargeable PowerCel, AAA PowerPak or Off-the-Ear Power Option, a solid red LED will light up on the Naída CI.

If the user attaches depleted Zn-Air batteries, the sleep mode LEDs will be shown on the Naída CI (orange LED blinks twice every three seconds) or, if the cartridge is completely discharged, no LEDs will be shown and no sound will be heard through the Listening Check earbuds.

Using the Telephone

There are a variety of ways to use the telephone with the Naída CI sound processor. Consult a hearing care professional for recommendations regarding telephone use and which of the following options are best:

- *Use the telephone receiver.* The telephone can be used by placing the telephone receiver directly over the T-Mic 2, processor microphones or headpiece microphone, if activated. It is sometimes necessary to try different phones and providers, particularly when cellular phones are used, in order to find the optimal telephone signal.

- *Use T-coil.* The T-coil is programmable by a hearing care professional in the SoundWave™ fitting software. If there are any questions about whether it is activated and in what program, please contact the implant center. When using the T-coil it may be necessary to move the phone receiver around the Naída CI to see where it works best.

- *Use Bluetooth®.* Any Bluetooth compatible device can be synced to the ComPilot to stream phone calls directly to the Naída CI. The microphone for the speaker is located on the ComPilot, so the phone can be up to 15 - 30 feet (5 - 10 meters) away and still be in use.

- *Use DuoPhone (for bilateral recipients).* DuoPhone is programmable by your hearing care professional in the SoundWave fitting software. With the phone placed to one ear, the conversation

is heard in both ears.

- *Use a patch cable.* A patch cable may be used to connect directly to a cellular or cordless phone. The patch cable connects to the headset jack of the phone on one end and the auxiliary jack of the ComPilot on the other. An Audio Interface Cable is available from AB, or a custom-made patch cable from an independent vendor may be required. Consult with a hearing care professional or an AB representative for further information regarding this option.

- *Use a speaker phone.* Using a speaker phone eliminates the need for additional equipment when using the telephone. Simply turn on the speaker phone and communicate in your regular manner.

Telephone Tips

- Be patient. Remember that phone use takes practice and will improve over time.

- Practice listening with familiar speakers, such as family members, friends, your therapist, or hearing care professional.

- It may be helpful to become familiar with the topic of discussion ahead of time. For example, tell your friend to call you at a specific time to talk about a specific topic (e.g., Call me at 6:00 p.m. to talk about going to the movies).

- You may need to practice with several telephones to find one that is right.

- When selecting a cellular phone, remember to try the phone first.

- For additional telephone support and listening exercises, visit ***TheListeningRoom.com.***

Telecoil

Using the Built-in Telecoil

Telecoils provide wireless access to hearing-aid-compatible telephones and induction-loop systems (found in some public facilities). Telecoils capture electromagnetic fields in the environment and deliver these signals to your processor. A telecoil is built into your processor and is programmed by a hearing care professional. To activate your telecoil, first consult with the hearing care professional to determine if a program in your processor has been created for its use. If so, the telecoil will activate once the processor is switched to the designated program.

For your telecoil to be effective, the recipient must have access to a looped system or a hearing aid-compatible phone. This will allow the telecoil to receive the electromagnetic field generated by these devices. If the recipient is attempting to use the telecoil with a non-compatible audio device, no sound or a low-level humming or buzzing noise may be heard.

CAUTION: Telecoils are known to be susceptible to magnetic noise generated by most industrial lighting fixtures, store and airport security scanners, band scanners, power transformers, motor starters, and monitor screens.

Battery Information

170 mAh Li-Ion

Zn-Air

230 mAh Li-Ion   110 mAh Li-Ion   Zn-Air (Tamperproof Cartridge)
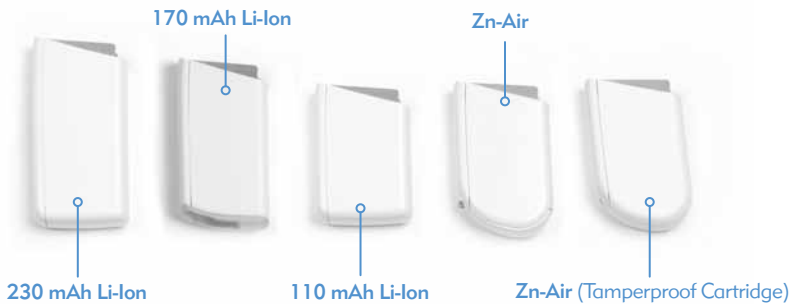
The Naída CI sound processor can be used with two disposable Zn-Air batteries, three sizes of rechargeable Lithium Ion PowerCels, the AAA PowerPak, or the PowerCel Adapter. Please refer to the *AAA PowerPak and PowerCel Adapter Instructions For Use* for more details on these products.

AAA PowerPak

PowerCel Adapter
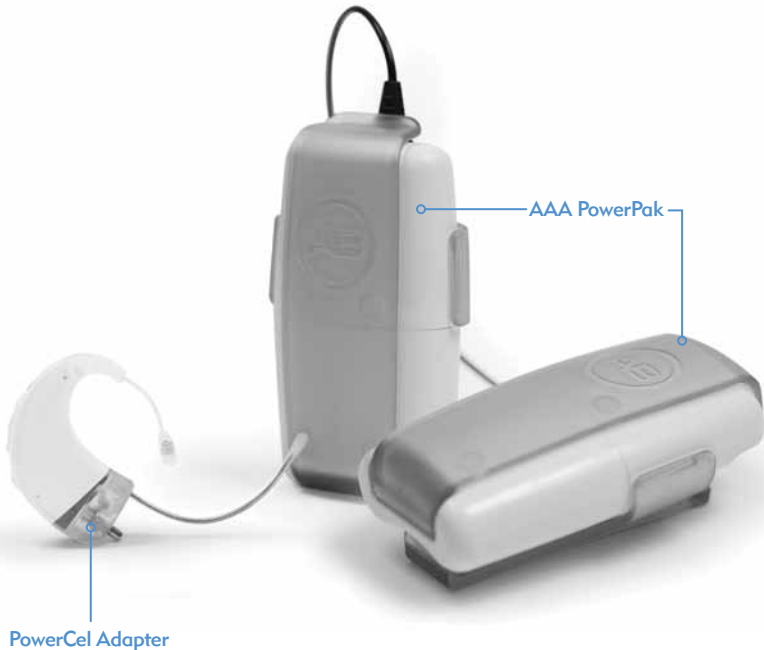
WARNING: Do not connect the Zn-Air Battery Pak to the charger. The charger is to be used with the rechargeable Lithium Ion PowerCels only. All three sizes of Lithium Ion PowerCels can be used on the PowerCel Charger.

Assembling the PowerCel Charger

WARNING: Power supplies and battery chargers should be operated in an open area to ensure adequate airflow. While, to date, no injuries have been reported, during normal use in the event of a fault, components may become hot. If the device's temperature results in discomfort or pain when touched, disconnect the power source and contact AB.

CAUTION: Only use the charger provided for charging AB PowerCels. Do not use it to charge other batteries. Do not try to charge Naída CI PowerCels using a charger other than that provided by Advanced Bionics.

Power Supply Adapters

Battery Charger

USB
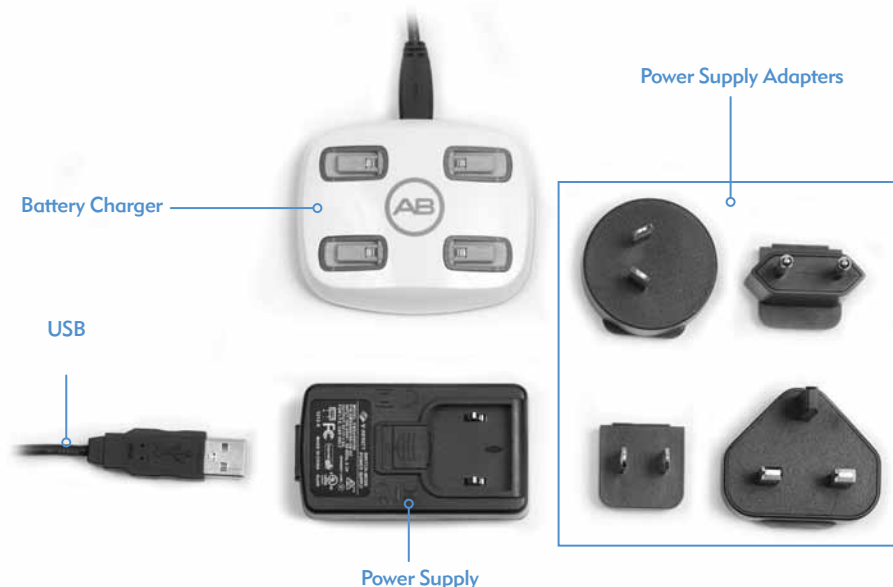
Power Supply

The charging system consists of the charger, power supply, and power supply adapters. The charger can also be used with the power supply removed from the cable, exposing the USB jack so it can be powered from any USB port.

Charging Information for Lithium Ion Batteries:
The charger provided with the sound processor is designed to charge up to four PowerCels simultaneously. It takes approximately 2-3 hours to fully charge a depleted PowerCel. This will vary slightly for different PowerCel types.

The PowerCels do not need to be fully depleted before recharging.

It is recommended that you use and recharge the PowerCel(s) at least once every three months. Please note that PowerCels will decrease in capacity with age, even if not in use. This is normal for all rechargeable batteries and should not be considered a defect.

> **NOTE FOR EUROPEAN CUSTOMERS:** For proper disposal of rechargeable batteries in Europe, please return depleted batteries to the nearest AB representative or a designated programming/follow-up center.

In the United States and Canada, please call the **Rechargeable Battery Recycling Corporation** hotline at **877.273.2925** or visit their website at *www.call2recycle.org.*

Inserting the PowerCels into the Charger

Locate the slide tracks on the charger. Position the PowerCel so that the battery contact is facing down toward the base of the charger.

Slide the PowerCel along the tracks until it engages. The charger is designed so the PowerCels can only be inserted in one direction.

Removing the PowerCels from the Charger

Gently slide the PowerCel out of the slide tracks of the charger, sliding toward the outer edge of the charger.

The Zn-Air Battery Pak

The Naída CI uses size 675 Power Implant disposable batteries (675P). Regular size 675 hearing instrument batteries will not be powerful enough for a cochlear implant.

Inserting Zn-Air Batteries

Holding the Zn-Air Battery Pak in one hand, gently but firmly push down on the lever on the back of the battery cartridge. This will cause the drawer to pop out of the bottom of the cartridge.

Pull the battery drawer out of the cartridge with the other hand.

3 Remove the Zn-Air batteries from their package, making sure to remove the tape from the flat positive (+) side of the cell. Removing the tape allows oxygen to flow in and activate the battery, so be sure to install it immediately after peeling off the tape.
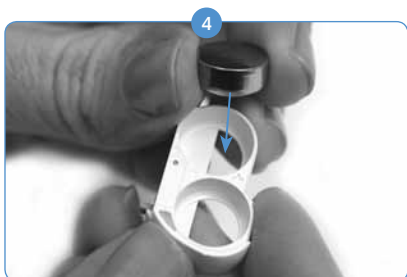
Place two Zn-Air batteries, positive (+) (flat) side up, in the two openings in the battery drawer.
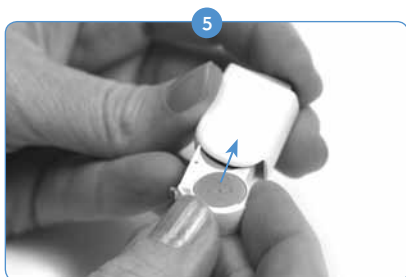
Once the batteries are flush with the top of the battery drawer, gently slide the battery drawer back into the battery cartridge.

Note: If the cells are inserted incorrectly, the battery drawer will not close.

6 Attach the battery cartridge to the Naída CI following the same instructions as attaching the PowerCels to the Naída CI in the section *Replacing the Battery.*

Inserting Zn-Air Batteries (Tamperproof Cartridge)
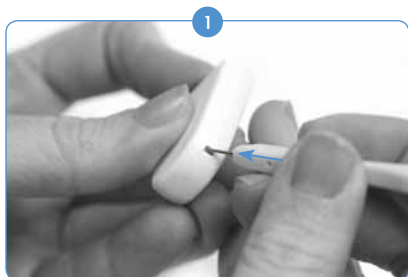
Use the same tool provided for T-Mic 2/ Earhook removal and replacement—Insert the pointed end of the tool into the small hole located on the spine of the Zn-Air Battery Pak. **Note:** If you do not have the tool present, any thin pointed device should work to release the drawer.
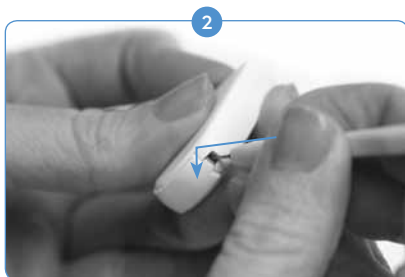
With the tool inserted in the hole, gently push in and downward until you feel the Zn-Air Battery Pak drawer release and the button of the Zn-Air Battery Pak pops out.
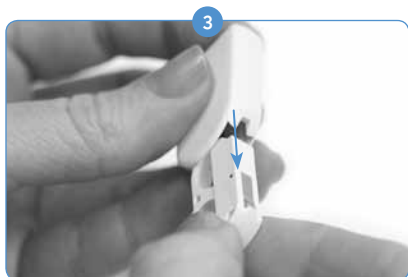
Set the tool aside and grasp the Zn-Air Battery Pak drawer with your hand and gently pull it the rest of the way out.

To insert the batteries, follow instructions Step 2 to 5 of the previous section *Inserting Zn-Air Batteries.*

Charger LED (Light Emitting Diode) Indicator

The charger has different indicator lights that are located at the base of each PowerCel charging port as well as where the power cable enters the charger. If the green micro USB light is lit, it means the charger is connected to a power source and ready to charge the PowerCels.

The LEDs located at the base of each PowerCel charging port have 3 color options.

Understanding PowerCel Charging Port LEDs

Color	Indication
Blue	PowerCel is charging
Green	PowerCel is fully charged
Red	Fault Condition

If a fault is exhibited by the PowerCel charger, find out if the fault is with the PowerCel or the charger itself by doing the following. Insert a different PowerCel in the charger bay that exhibits the problem. If the red LED is still on, there is a problem with the charger. If the red LED does not light up, there is a problem with the PowerCel. If there is a problem with either the PowerCel or the charger, please contact Advanced Bionics.

The charger LED turns off (or may show a faint blue if the room is very dark to indicate either the battery is fully charged or there is a fault with the battery. The user should wait one full minute. If the LED turns green, the battery is fully charged and ready for use. If the LED does not turn green after one minute, the battery should be considered faulty and you should contact Advanced Bionics for a replacement.

WARNINGS:

- Do not recharge disposable batteries.

- Do not place batteries in mouth.

- Do not chew or swallow batteries. If this happens, seek immediate medical attention.

- Do not allow leaking battery fluid to come into contact with skin, mouth, or eyes.

- Do not dispose of batteries in a fire.

- Do not leave children unattended with or allow them to play with batteries.

- Do not allow children to charge batteries unattended.

CAUTIONS:

- Remove batteries from the sound processor when they are drained to prevent damage from possible leaking.

- If a battery shows visible signs of leakage, dispose of it in accordance with local regulations.

- Do not expose batteries to heat (e.g., do not store in direct sunlight or in a hot car).

- Carry batteries in the carrying case provided or in a sealed plastic bag. Batteries can short circuit if they come into contact with metallic objects such as coins or keys.

- Do not immerse batteries in water.

- Only charge batteries using the charger(s) recommended by the manufacturer.

- When FM module is not attached, use clear cover provided to protect pins.

For additional information, refer to the *Approved Power Sources* section of the User Guide.

Using Naída CI Accessories

Advanced Bionics supplies a range of accessories for use with the Naída CI, although not all accessories may be included in the sound processor kit. Discuss with the recipient's hearing care professional which accessories are included with the Naída CI sound processor.

For further information regarding the accessories listed below, refer to the *Instructions for Use* included with the product or contact Advanced Bionics.

Headpieces

The Naída CI sound processor is designed for use with the Universal Headpiece (UHP).

Universal Headpiece (UHP)

The UHP is intended to be used with the Naída CI during daily activities outside of water environments.

ComPilot
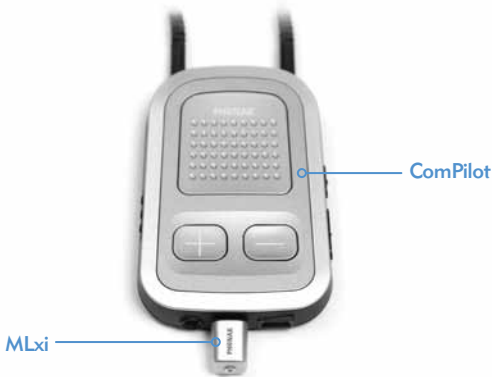
ComPilot

MLxi

When used with the ComPilot, the Naída CI is compatible with the Phonak MLxi wireless FM receiver. For instructions on how to connect an FM receiver to the ComPilot, refer to the *Using FM* section of the User Guide or to the *ComPilot Instructions for Use and AB ComPilot Addendum.*

Naída CI Listening Check and Listening Check Earbuds

Listening Check Earbuds

Naída CI Listening Check

The Naída CI has a convenient monitor mode, accessed by using the Naída CI Listening Check and Listening Check Earbuds. This mode enables someone with unaided hearing to listen to the Naída CI input sound sources. For instructions on how to listen to inputs using the Naída CI Listening Check and Listening Check Earphones, refer to the *Listening to the Microphone(s) and Auxiliary Inputs* section of the User Guide.

Audio Accessories

FM Input (Euro Socket)

ComPilot

Audio Input
(3.5 mm Auxiliary Jack)

Charging Input (Mini-USB)

The auxiliary jack on the ComPilot allows the recipient to plug directly into battery-operated consumer electronics devices, such as MP3 players, portable DVD players, or handheld gaming devices. When connecting to consumer devices, it may require attenuation to prevent sound from being too loud or distorted. This attenuation can be applied by a hearing care professional during programming so the recipient can fully enjoy the sound from an audio device. Also, a hearing care professional can create a program allowing the recipient to hear both environmental and auxiliary device sounds. Talk to your hearing care professional about which programming options are right forthe recipient in this situation.

WARNINGS AND CAUTIONS:

- Do not connect to mains powered sound sources (e.g. TV, computer) unless using a mains isolation cable.

- Do not swim or bathe with the ComPilot.

- **NOTE:** When streaming audio with the ComPilot, if your headpiece becomes unlocked, **turn off** the ComPilot prior to re-locking your headpiece. Not doing so may prevent the sound processor from communicating with your implant.

Color Customization

The Naída CI comes in up to 12 color options, allowing the recipient to customize the look of the sound processor to suit their personal style.

Naída CI Carrying Case

Naída CI Carrying Case

A carrying case is provided with the Naída CI for use when traveling or for storage when the sound processor and accessories are not in use. If the Naída CI is exposed to moisture or high levels of humidity, store components overnight in the Zephyr by Dry & Store® provided.

Zephyr by Dry and Store®

Zephyr by Dry and Store

A Zephyr by Dry & Store is included with the Naída CI. The Zephyr is designed to remove moisture from the equipment and is intended for daily use with the Naída CI accessories. For detailed instructions on how to use and care for the Zephyr, refer to the *Operating Instructions* included in the package. It is important that you read and adhere to the *Warnings and Cautions* prior to and during use.

IP Rating Information

An ingress protection, or IP, rating is used to specify the strength of an enclosure surrounding electronic equipment. Each IP rating consists of two numbers. The first number indicates the level of protection an enclosure provides against intrusion by solid objects, materials, or dust. The second number indicates the level of protection against intrusion by water or liquids.

The Naída CI carries a rating of IP57. This rating indicates that the Naída CI is protected against the following conditions:

- Penetration of solid foreign objects equal to or greater than 1.0 mm in diameter
- Failure due to immersion for 30 minutes to a depth up to 1m.

Care of the Naída CI Sound Processor and Accessories

It is important to properly care for the Naída CI to ensure optimal hearing at all times. If any part of the Naída CI needs to be cleaned, use only a damp cloth to wipe the part(s). Do not expose any part of the sound processor or accessories to additional solvents (e.g. soap, bleach).

Changing Microphone Covers

The Naída CI has a microphone filter located over the rear microphone to prevent dust and debris from damaging the microphone. Advanced Bionics recommends changing the microphone cover on the Naída CI every three months, or earlier if there is a notice in the degradation of sound quality.

Removing the Microphone Cover

Grasp the Naída CI in one hand while holding the removal tool in the other hand.
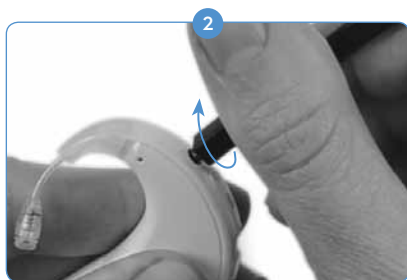
Using the end of the tool with the threads on it, screw into and through the microphone cover until the tool is capable of removing the microphone cover.

Carefully pull the tool out of the opening. The microphone cover should come out with the tool. The cover can be removed from the tool and then disposed of.

Replacing the Microphone Cover

Grasping the tool in one hand, use the blunt, non-threaded end to put a new microphone cover on the end of the tool. The microphone cover is quite small, so the tool works as a guide to properly and easily replace the cover.
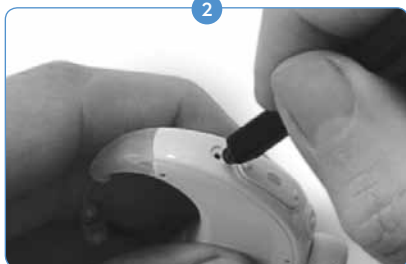
With the microphone cover on the end of the tool, hold the Naída CI in the other hand and carefully align the end of the tool directly over the opening to the microphone.
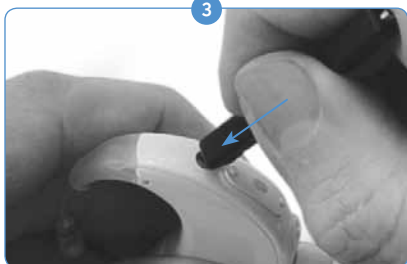
Press the cover into the hole until the tool is flush with the processor.

Carefully pull the tool away from the processor, leaving the microphone cover correctly seated in the microphone port.

Recommended Naída CI Operating and Storage Temperatures

Operating and Storage Temperature Ranges

Condition	Minimum	Maximum
Operating temperature	0°C (32°F)	45°C (115°F)
Storage temperature	-20°C (-4°F)	55°C (131°F)

Approved Power Sources

Advanced Bionics has verified the Naída CI to function with the power sources listed below; behavior when using power sources other than those listed here cannot be guaranteed.

Approved Naída CI Power Sources

Power Source	Model Number	Capacity (mAhr)
PowerCel	CI-5511-XXX	110
	CI-5517-XXX	170
	CI-5523-XXX	230
Zn-Air	PowerOne p675	1,140
Programming Interface (used during fitting, only)	CI-6101	Not Applicable

Approved Naída CI Power Supplies

Power Supply	Rated Voltage	Type	Rated Energy
PowerCel	3.7 V	Li-ion (Rechargeable)	0.4 Wh – 0.9 Wh
Zn-Air	2.8 V	Zn-Air (Disposable)	1,240 mWh
Programming Interface	5.0 V	DC	1,250 mW

Troubleshooting the Naída CI

If no sound is heard or the red LED is flashing once per second on the Naída CI processor LED when the headpiece is in place over the implant, try the following troubleshooting steps:

1. Visually inspect the cable for any damage or breakage and verify it is firmly attached to the headpiece and sound processor.

2. Remove any materials (hat, scarf, headband, etc.) that may be covering the microphone.

3. Unaided listeners may perform a listening check of the microphones as described in the *Listening to the Microphone and Auxiliary Input* section of the User Guide.

4 Replace the cable.

5 Replace the headpiece.

If these measures do not resolve the problem, contact a hearing care professional or Advanced Bionics immediately for further assistance.

If no sound is heard or a solid red LED is indicated on the Naída CI processor LED, try the following troubleshooting steps:

1 Remove the battery cartridge.

2 Reattach the battery cartridge.

3 If you are using Zn-Air batteries and steps 1 and 2 do not resolve the problem, replace with fresh Zn-Air batteries and reattach the battery cartridge.

4 If you are using PowerCels, try a PowerCel with a known full charge and reattach.

If these measures do not resolve the problem, contact a hearing care professional or Advanced Bionics immediately for further assistance.

If static or distorted sounds are heard, try the following troubleshooting steps:

1 Remove any materials (hat, scarf, headband, etc.) that may be covering your microphone.

2 Visually inspect the cable for any damage or breakage. If any problems are noted, replace cable.

3 Verify that the cable is firmly attached to the headpiece and sound processor and that the headpiece is positioned properly on the head.

4 Verify that the desired program setting and volume level have been correctly set. If synced to a an AB myPilot, do a status read out to confirm correct program, volume, and sensitivity settings.

5 If the input is from the headpiece microphone and the static or distorted sounds persist, replace the headpiece cable.

6 Visually inspect the microphones for signs of debris or wear.

7 If available, replace the headpiece and/or headpiece Color Cap.

8 Clean the battery contacts on the processor.

9 Replace the Microphone Cover.

10 Replace the T-Mic 2 Cover.

11 Unaided listeners may perform a listening check of the input sound sources as described in the *Listening to the Microphone and Auxiliary Inputs* section of the User Guide.

If these measures do not resolve the problem, contact your hearing care professional or Advanced Bionics immediately for further assistance.

If sounds are muffled or distorted:

1 Confirm that no clothing or material is obstructing the microphone opening.

2 Repeat the troubleshooting steps for when static is heard, listed above.

If the Naída CI battery contacts appear to have rust forming on them:

1 Clean the contacts with a hearing aid brush or dry cotton swab.

If the Naída CI sound processor does not power up:

1 Remove and replace the battery cartridge.

2 Verify that a charged PowerCel or two fully charged Zn-Air batteries are in place.

3 Verify that the PowerCel is seated properly or the Zn-Air batteries are inserted correctly.

4 If the problem continues, contact a hearing care professional or Advanced Bionics for further assistance.

If no sound is heard with an FM or auxiliary audio device attached to the ComPilot:

1 Verify that the FM receiver and/or auxiliary audio device is attached firmly to the ComPilot.

2 Verify that the ComPilot is powered on.

3 Verify that the FM transmitter and/or external audio device are powered.

4 Verify that you are using a program which allows for auxiliary, or Aux, input to the Naída CI and that the Naída CI is wireless enabled.

5 Verify that the FM receiver has been programmed for use with the Naída CI.

6 Verify that the ComPilot neckloop is worn correctly around the neck, with the ComPilot lying approximately mid chest.

If these measures do not resolve the problem, contact a hearing care professional or Advanced Bionics for further assistance.

Troubleshooting Naída CI LEDs

The Naída CI LEDs are a programmable feature providing diagnostic information regarding battery life, microphone function, pairing capabilities, or processor status. Refer to the *Understanding Naída CI LEDs* section of the User Guide for an explanation of the expected LED behavior(s).

If no lights appear:

1. Check that the LED is not obscured by the user's clothing, hair, and/or, processor wearing device.
2. Verify that the PowerCel is seated properly on the processor, or, if using Zn-Air Battery Pak, verify that the batteries are inserted correctly.
3. Replace the battery.
4. Verify that the Naída CI is not in Standby Mode by briefly pressing the program button.

If green LED does not flash in response to loud sounds (programmable feature):

1. Confirm that this feature is enabled on the processor/program.
2. Verify that the PowerCel is charged and is inserted properly on the processor. If using Zinc Air Cells, verify that the cells are new and inserted properly within the cartridge.
3. If paired to an AB myPilot Remote Control, check the sensitivity setting, or try increasing it slightly for assessment purposes only.
4. Try another program slot.
5. Try another audio source (such as the T-Mic 2/processor microphone/headpiece microphone)
6. Unaided listeners may perform a listening check of the audio inputs as described in the *Listening to the Microphone and Auxiliary Inputs* section of the User Guide.
7. Try another auxiliary source.
   a. You will need a program which accepts input from external audio sources and to have wireless enabled on the processor.
   b. If the green LED flashes in response to input from an external audio device, place the processor and headpiece in the Zephyr by Dry & Store. If the green LED still does not flash in response to loud sounds following a full drying cycle and when using the usual microphone input and usual program settings, proceed to the next step.
8. If the headpiece microphone is the only input that does not show a blinking green LED, replace the headpiece and/or cable. If T-Mic 2 is the only input that does not show a blinking green LED, replace the T-Mic 2. If the processor microphones do not show a blinking green LED with audio input, contact a hearing care professional or Advanced Bionics.

During battery status check, no blink or only one orange blink is observed:

REMEMBER: Zn-Air batteries will NOT give the LED battery status upon start up. Only the rechargeable PowerCels will give the LED battery status read out.

1. Verify that the PowerCel is seated properly on the processor.
2. Replace with a fully charged PowerCel.

3. If there are no blinks after the PowerCel replacement, clean the contacts with a hearing aid brush or dry cotton swab.

4. If the problem continues, contact a hearing care professional or Advanced Bionics for further assistance.

If the LED behaves differently following processor replacement or programming:

1. Verify with the recipient's implant hearing care professional whether any program changes have been made which may affect LED behavior.

If these measures do not resolve the problem, contact a hearing care professional or Advanced Bionics for further assistance.

Troubleshooting Naída CI Internal Alarms

Internal alarms are a programmable feature which can be used independently or in conjunction with the Naída CI LEDs to provide important information about status and battery life. Refer to the *Understanding Internal Alarms* section of the User Guide for an explanation of the expected internal alarm behavior(s).

If no internal alarm is heard:

1. Ensure the headpiece is correctly seated over the implant site.

2. Verify that the battery is inserted properly on the processor.

3. Verify that the PowerCel or Zn-Air batteries have enough charge to power the Naída CI to stimulate the internal implant.

4. Replace the battery.

5. Change the program or volume setting to see if the internal alarm can be heard.

6. Verify with the recipient's implant hearing care professional whether any program changes have been made which may affect internal alarm behavior.

7. Have an unaided listener conduct a listening check to see if they can hear the internal alarms. Please see *Listening to the Microphone and Auxiliary Inputs* section of the User Guide.

> **WARNING:** The processor or headpiece should be serviced only by Advanced Bionics. Do not attempt to open or repair the parts. Do not continue to use the processor or headpiece if any part of it is damaged. Unauthorized opening of the processor, headpiece, or other equipment, will void the warranty and may compromise system performance.

Guidance and Manufacturer's Declaration

Per IEC 60601-1-2

Electromagnetic Emissions

The Naída CI is intended for use in the electromagnetic environment specified below. The customer or the user of the Naída CI should ensure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment-Guidance
RF emissions CISPR 11	Group 1	The Naída CI uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The Naída CI is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Electromagnetic Immunity

The Naída CI is intended for use in the electromagnetic environment specified below. The customer or the user of the Naída CI should ensure that it is used in such an environment.

Immunity Test	IEC 60601 Test level	Compliance level[a]	Electromagnetic Environment-Guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the Naída CI, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $$d = 1.2\sqrt{P} \ < 800 \text{ MHz}$$ $$d = 2.3\sqrt{P} \ \geq 800 \text{ MHz}$$ where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[b] should be less than the compliance level in each frequency range.[c] Interference may occur in the vicinity of equipment marked with the following symbol:

a Essential performance of the Naída CI per IEC 60601 requirements is defined as auditory stimulation within safe amplitudes.

b Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Naída CI is used exceeds the applicable RF compliance level above, the Naída CI should be observed to verify normal operation.

c Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Separation Distances between RF Communications Equipment and Naída CI

Recommended separation distances between portable and mobile RF communications equipment and the Naída CI		
The Naída CI is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Naída CI can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Naída CI as recommended below, according to the maximum output power of the communications equipment.		
Rated Maximum Output Power of Transmitter (w)	**Separation distance according to frequency of transmitter (m)**	
	$d = 1.2\sqrt{P} < \textbf{800 MHz}$	$d = 1.2\sqrt{P} < \textbf{800 MHz}$
0.01	0.12	0.23
0.1	0.38	0.73
1	1.2	2.3
10	3.8	7.3
100	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.		

Compatibility Tables

	Implant Type			
Processor Type		C1	CII	HiRes 90K	HiRes 90K Advantage
	Naída CI		✓[5]	✓[5]	✓[5]
	Neptune		✓[1]	✓[1]	✓[1]
	Harmony	✓[2]	✓[3]	✓[3]	✓[1]
	Auria		✓[3]	✓[3]	✓[1]
	Platinum Sound Processor (PSP)	✓[4]	✓	✓	✓[1]

1 Requires SoundWave 2.1 or later
2 Requires SoundWave 2.0 or later
3 Requires SoundWave 1.4 or later
4 Requires SClin2000 and CPI-11
5 Requires SoundWave 2.2 or later and CPI-3

	Implant Type			
Software Type/Version		C1	CII	HiRes 90K	HiRes 90K Advantage
	SClin2000	✓	✓		
	SoundWave (versions 1.x)		✓	✓	
	SoundWave 2.0	✓[1]	✓	✓	
	SoundWave 2.1	✓[1]	✓	✓	✓
	SoundWave 2.2	✓[1]	✓	✓	✓

1 Only on Harmony

	Headpiece Type			
Processor Type		Universal Headpiece (UHP)	AquaMic	HR 90K Auria Headpiece	Platinum Headpiece (PHP)
	Naída CI	✓	✓		
	Neptune	✓	✓		
	Harmony	✓		✓	✓
	Auria	✓		✓	✓
	PSP	✓			✓

	Implant Type			
Programming Interface		C1	CII	HiRes 90K	HiRes 90K Advantage
	CPI-II	✓	✓	✓	✓
	CPI-3	✓[1]	✓	✓	✓

1 Only on Harmony

Cleaning & Maintenance

- Clean with a soft cloth. Do not immerse.

- Follow suggested routine maintenance of microphone covers for the T-Mic 2 and processor microphone.

- Servicing or modification of the Naída CI or its accessories by any entity other than Advanced Bionics is not permitted and will void the manufacturer's warranty.

Performance Data

The HiRes 90K Advantage implant with the HiFocus Electrode and Naída CI processor support the HiResolution family of sound processing strategies including HiRes, HiRes with Fidelity 120 (HiRes 120), and ClearVoice.

HiRes™ and HiRes Fidelity 120™ Sound Processing

A clinical study was conducted in 50 adults implanted with a CII/HiRes 90K device who used a Harmony processor to document the benefits of HiRes 120 and HiRes sound processing. Performance with HiRes was accessed at the baseline visit and compared with HiRes 120 performance after three months of listening experience. Subsequently, subjects were refit and retested with HiRes. Results showed equivalent mean CNC word recognition scores for the two strategies. The mean HINT sentence perception scores in quiet and noise were significantly higher for HiRes 120 compared to baseline with HiRes. For HINT sentences in noise, the mean scores for HiRes 120 were significantly higher than scores after subjects were refit with HiRes.

Mean Speech Scores for HiRes and HiRes 120

	HiRes	HiRes 120	HiRes
	Baseline	3 months	3 months
CNC Words	**63**	**65**	**63**
HINT Sentences in Quiet	**88**	**93***	**91**
HINT Sentences in Noise (+8 dB SNR)	**64**	**70****	**65**

* HiRes 120 score significantly different from baseline HiRes score (p<.05)
** HiRes 120 score significantly different from baseline and 3-month HiRes score (p<.05)

This instrument is certified under:

FC FCC ID: S2B-ABBTE
IC: 10870A-ABBTE

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications made to this equipment not expressly approved by Advanced Bionics may void the FCC authorization to operate this equipment.

Contact Us

Advanced Bionics is committed to providing the highest quality products and service to our customers. We welcome your comments regarding the Naída CI sound processor or your suggestions to improve our products. Please feel free to contact AB or discuss your suggestions with the recipient's hearing care professional.

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